CPA6

Installation & User Guide

Compatible Equipment

CPA6 OM - Output Module
9040 - Loudspeaker
DC54/58 - Digital Communicators (Stand Alone Only)

Overview

Introduction

The CPA6 multizone alarm control panel has been manufactured under exacting quality control standards and incorporates the latest proven electronic technology and high quality components to assure outstanding and lasting performance.

The unit complies with British Standards recommendations (BS4737 Parts 1 and 2).

The micro-processor based panel caters for alarm systems of up to sixty circuits and is easily installed to provide highly effective system control and monitoring.

Its main advantages include:-

- SIMPLIFIED INSTALLATION WIRING, reduced time and costs.
- ENGLISH TEXT DISPLAY, shows all faults, alarms and operating directions.
- EVENT MEMORY, related to date and time , stores all events, alarms, opening and setting etc., in reverse order of occurrence.
- INTERNAL ELECTRONIC SOUNDER, differing tones avoid the need for separate audible devices.
- SIMPLE OPERATION, reduced commissioning, training and servicing costs.
- NUMEROUS STANDARD FEATURES.

Facilities

The panel offers the following facilities as standard:-

INPUTS

Up to 60 individually controlled and indicated detection circuits may be connected (10 per zone - interfaced via remotely positioned Zone Expansion Module or ZEM)

ENGLISH TEXT DISPLAY

Provides fully detailed information of system status, detection circuit conditions, and in addition, all User and Engineer prompts necessary for the operation and programming of the system, for example “Call Alarm Company to reset system”. This prompt statement is displayed to the User when he attends the panel following an alarm or fault and an ‘Engineer Reset’ operation is required.

EVENT MEMORY

All alarm/fault conditions and panel status changes (e.g. opening and setting, identification of shunted circuits, etc.) are stored with date and time reference.

All relevant events can be recalled on the panel's display by the User, following an alarm or fault condition. The alarm company engineer may recall the entire stored log to the display, or alternatively onto a portable printer; and in addition to all alarm and fault events, will also be able to examine the times of opening/setting, which user opened/set the alarm system, and which detection circuits were isolated at the time of each setting operation.

The memory cannot be cleared manually and will always contain the latest forty events in reverse order of occurrence, (latest event - first).

Circuit Wiring and System Expansion

Introduction

Reference will be made to Zones and Circuits when explaining typical configurations. It is therefore necessary to understand the difference between them when used in this context. It will be helpful to refer to Figure 1 (page 5) which shows the connection and use of end-of-line and shunt resistors across normally closed contacts.

Normally closed circuits

Each detection circuit may have up to ten normally closed (N.C.) contacts, excluding tamper only type (0), 2 knock-night type (3) and shunt-lock circuit type (6).

Each contact must have a 4k7 shunt resistor fitted to enable the CPA6 to continuously monitor the circuit wiring.

An end-of-line (E.O.L.) resistor must always be fitted to each circuit. Detection circuits may be wired in twin cable, and make use of a remote resistor at the 'End of Line'.

Alternatively, if four core cable is used, the E.O.L. resistors fitted at the termination block of the control panel may be utilised for detection circuits wired directly to the control panel.

Tamper Contacts

Tamper contacts are wired in series with the detection circuit and no shunt resistor is fitted.

NOTE: The tamper link/contact of a detector device must be wired in the opposite leg of the circuit to the detector contact.

Detection Circuits

Detection circuit types, e.g. P.A. 24 hr. etc. connected to each zone or Z.E.M loop are defined during commissioning and can be any of the eight types listed below:-

CIRCUIT TYPES

TYPE 0 - Tamper-only circuit
This definition is given to a detection circuit not connected at the commissioning stage, (i.e. circuits available for future expansion).

TYPE 1 - Night circuit
Where detection circuits are to be active only when the system is in the test/set condition, this definition is used.

TYPE 2 - 24-hour Circuit
This type is selected when continuously monitored detectors are connected, (typically fire doors, tube and wire framing etc). Circuit operation will cause the fault audible tone, when the system is open, and a main alarm condition when the system is set.

TYPE 3 - Double-Knock night circuit
This option is programmed where two devices have to be operated simultaneously when the alarm system is set, before an alarm condition is generated.

NOTE: During setting, if either of the two devices connected to this type of circuit is operated, then a fault condition will occur, which will inhibit the system from being set.

TYPE 4 - P.A. Circuit
This definition is given to Personal Attack buttons and any other detectors which are required to operate the panel's P.A. output only. This type of circuit is always active.

TYPE 5 - Exit/Entry Route Circuit (intermediate)
Detection circuits that may be operated during exit and entry are defined thus. This type of circuit is shunted during authorised entry to the premises, but will cause a main alarm if operated whilst the system is set.

TYPE 6 - Last exit contact/Shunt lock circuit
Either the final exit door contact, or shunt lock fitted to the final exit door must be defined as this circuit type.

TYPE 7 - Test circuit
Full details of the first operation of a detection circuit defined thus, will be stored in the panels event log, but will not cause any operation of alarm fault outputs. A circuit on test and in fault condition will not inhibit setting the alarm system.

The following types of detection circuits may additionally be programmed as User 'shuntable';-

a) Type 1 - Night circuit.
b) Type 2 - 24-hour circuit - may be made shuntable only whilst the alarm system is open.
c) Type 3 - 2 knock night circuit.
d) Type 5 - Exit/Entry (intermediate) circuit.

NOTE: All detection devices connected to an individual circuit must be of the same type.

Detection Zones and Zone Expansion

(The CPA6 has six zones. Each zone may have one circuit only, or can, by the addition of external Zone Expansion Modules, (Z.E.M.'s) be expanded in increments of two circuits, up to a maximum of ten (see figure 1).

Z.E.M's are housed in small tamper-protected metal/plastic enclosure and would normally replace a junction box in the location of the detectors.

The enclosure tamper switch is connected into loop 'A' of a Z.E.M. internally.

Two different types of detection circuits may be connected to a single Z.E.M and each identified during the commissioning procedure.

Z.E.M's are interconnected with two wires, the output of one Z.E.M. connecting to the input of the next. Up to five Z.E.M.'s can be connected in this manner into a single CPA6 zone input.

Circuit identification is achieved by noting the position of each Z.E.M. in its associated group e.g. Zone 4 circuit 6 refers to the circuit connected to the 'B' loop of the third Z.E.M. on the input to Zone 4 of the panel.

NOTE: Z.E.M. Interconnection is polarity conscious.

When a Zone has only a single circuit wired to it, the Z.E.M. -ve input connection on the CPA6 PCB is ignored and the +ve & -ve terminals are used for the detection circuit, with the E.O.L. terminals providing the end of line resistor.

Detection circuit wiring to Z.E.M.'s is via terminals 'Loop A' and 'Loop B' and the E.O.L. resistors must be remote from the Z.E.M fitted.

Outputs

P.A.
This drives high (to + 12V via a 47R resistor) for signalling purposes following activation of any P.A. circuit.

ALARM
This drives high (to + 12V via a 47R resistor) for signalling purposes following activation of any detection circuit (excluding P.A. Circuits) when the system is set.

SET
This drives high (to + 12V via a 47R resistor) for signalling purpose when the alarm system is set. The output is removed as entry to the premise commences.

E/E
This drives high (to + 12V via a 47R resistor) when the system is being set or opened.

24HR/FAULT
This output drives high (to +12V via a 47R resistor) following operation of 24 hour or tamper circuits during the day, or any fault condition during system setting.

BELL RELAY
This output is a voltage-free normally open relay contact which closes an alarm, following any programmed bell delay. The contact will remain closed until either the alarm system is reset, or a pre-set bell duration time expires.

NOTE: When the panel supply is switched via the relay contacts to drive an external bell, the bell must be of a 'suppressed' type.

AUX SUPPLY
This output is individually fused (FS1) and provides 13.6 volts dc @ 300mA (max) for external equipment.

SPEAKER
This output drives the integral sounder speaker, but may also be used to drive an additional extension speaker (8 Ohm) where required.

Zone Wiring

NOTE:

Up to <u>five</u> Z.E.M.'s may be fitted to <u>one</u> zone of the CPA6, to provide a maximum of ten individually controlled/indicated detection circuits per zone.

Correct polarity and orientation must be observed when connecting Z.E.M.'s

On no account must the Z.E.M. Interconnection wiring be used to power other devices.

Up to 10 N..C. Detector contacts may be fitted on any detection circuit (except circuits programmed as L/x/S1, or, 2-knock night).

Issue 5 Z.E.M.'s also contain 2 spare terminals marked 'A' and 'B' which can be used as a junction point for power cables.

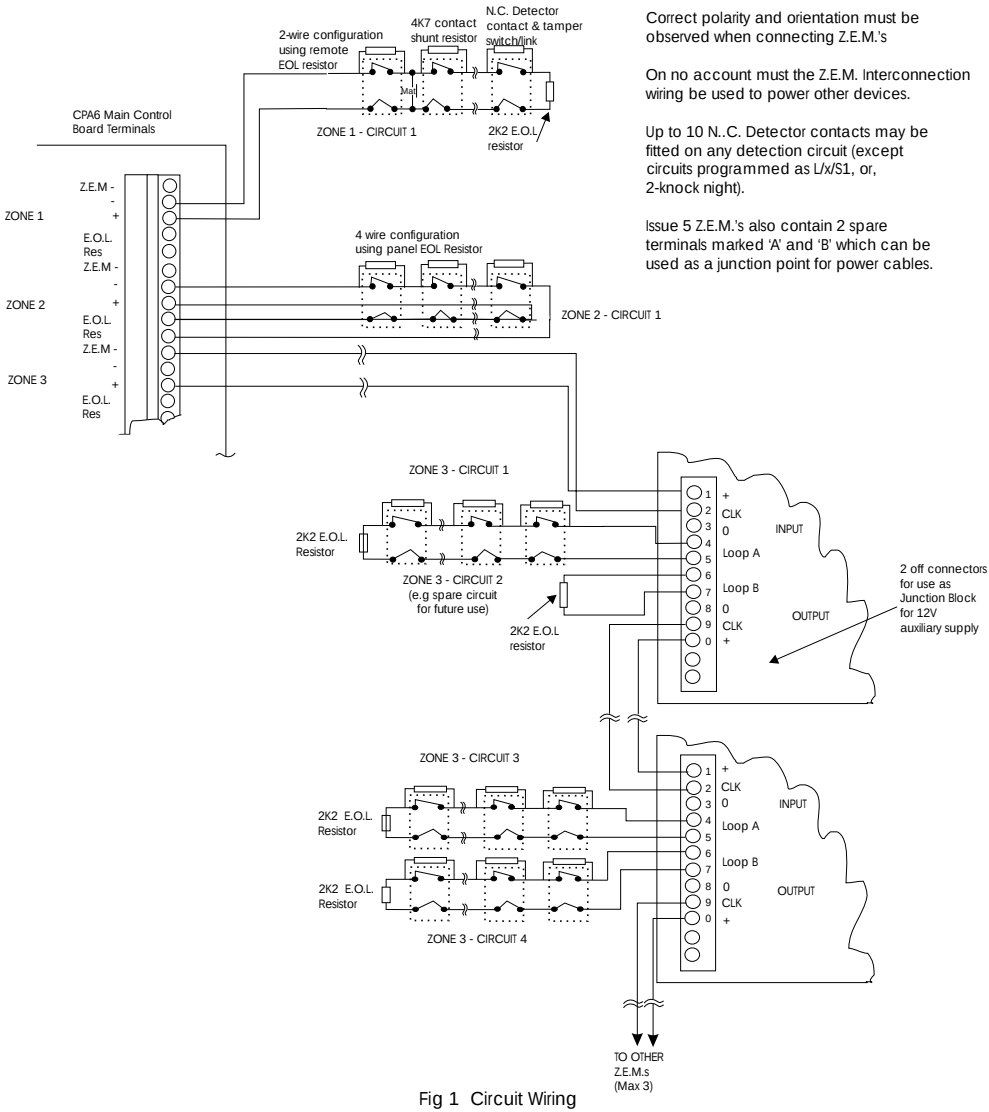


Fig 1 Circuit Wiring

Output Table

TABLE 1 PANEL STATUS

CIRCUIT TYPE	"OPEN"	"TEST"	"EXIT"	"SET"	"ENTRY"
TYPE 0 TAMPER ONLY CIRCUIT	24Hr/Fault O/P Fault Audible (L)	24Hr/Fault O/P Fault Audible (L)	24Hr/Fault O/P Fault Audible (L)	Main Alarm O/P Main Audible (L)	Main Alarm O/P Main Audible (L)
TYPE 1 NIGHT CIRCUIT	----------	24Hr/Fault O/P Fault Audible (NL)	24Hr/Fault O/P Fault Audible (NL)	Main Alarm O/P Main Audible (L)	Main Alarm O/P Main Audible (L)
TYPE 2 24 HOUR CIRCUIT	24Hr/Fault O/P Fault Audible (L)	24Hr/Fault O/P Fault Audible (NL)	24Hr/Fault O/P Fault Audible (NL)	Main Alarm O/P Main Audible (L)	Main Alarm O/P Main Audible (L)
TYPE 3 DOUBLE KNOCK NIGHT CIRCUIT	----------	1, or 2 Devices Operated: 24Hr/Fault O/P Fault Audible (NL)	1, or 2 Devices Operated: 24Hr/Fault O/P Fault Audible (NL)	2 Devices Operated: Main Alarm O/P Main Audible (L)	2 Devices Operated: Main Alarm O/P Main Audible (L)
TYPE 4 P.A. CIRCUIT	P.A. Alarm O/P Main Audible (L)	P.A. Alarm O/P Main Audible Tamp/Fault O/P (L)	P.A. Alarm O/P Main Audible Tamp/Fault O/P (L)	P.A. Alarm O/P Main Audible (L)	P.A. Alarm O/P Main Audible (L)
TYPE 5 EXIT/ ENTRY CIRCUIT	----------	24Hr/Fault O/P Fault Audible (NL)	SHUNTED BY PANEL	Main Alarm O/P Main Audible (L)	SHUNTED BY PANEL
TYPE 6 LAST EXIT/ SHUNT-LOCK CIRCUIT	----------	24Hr/Fault O/P Fault Audible (NL)	INITIATES SYSTEM SETTING	INITIATES SYSTEM OPENING	----------
TYPE 7 TEST CIRCUIT	----------	24Hr/Fault O/P Fault Audible (NL)	----------	----------	----------

Output Table

Table 1 shows the Outputs and Audibles that are operated following an activation of one of the circuit types, with the alarm system in its various states.

Latching and Non-latching conditions are denoted by 'L' and 'NL' in brackets.

Note:

1 Shuntable circuits (i.e. Those which an authorised user can isolate prior to setting the alarm system) can be tested whether isolated or not.

2 The table assumes that no bell delay is selected: If bell delay is selected, operation of the bell relay and of the internal main alarm audible, is delayed by the period set.

3 Following a tamper or 24 hour alarm in 'SET', on 'Opening' the tamper/fault output will operate together with the internal local audible.

4 The main alarm audible will sound if P.A. Circuits have been programmed to sound during the open ('DAY' condition).

Key Functions

Engineer Operation

The alarm engineer can only gain access to the control panel's programme by entering a four digit 'Engineer Code'.

Following entry, the control panel tamper protection is disabled enabling free access to the enclosure.

NOTE: The Engineer Code is NOT recognised when the alarm system has been set by an authorised User.

To change system parameters following commissioning:-

- Enter Engineer Code
- Open control panel lid
- Operate Write Protect switch SW1 to 'OFF' position
- Answer 'YES' and 'NO' as appropriate to automatically displayed statements to advance the program to the first step where a change of parameter is to be made
- Change parameter(s) as required
- Move 'Write Protect' (SW1) to 'ON' position
- Close panel lid and secure.
- Enter Engineer Code to return control panel to the open status.

Loading Defaults

Power down panel mains and battery.

Operate write protect switch SW1 to OFF position.

Power up panel battery and mains.

Enter 1234. The system is now back to Factory Default Parameters.

Bell Test/Walk Test

Please refer to page 15

Fuses

FUSE 1 Is rated at 2A and is of the Quick Blow type. Its function is to protect the + 12v auxiliary output from overloads.

Failure of FS1 will result in removal of the + 12v auxiliary output.

FUSE 2 Is rated at 1A and is of the Anti-Surge type. Its function is to protect the supply to the CPA6 circuitry from overloads.

Failure of FS2 will result in the CPA6 display blanking and the keypad tone failing to operate. All detection circuits will cease to function.

FUSE 3 Is rated at 500mA and is of the Quick Blow type. Its function is to protect the supply to Z.E.M's and detection circuits from overloads.

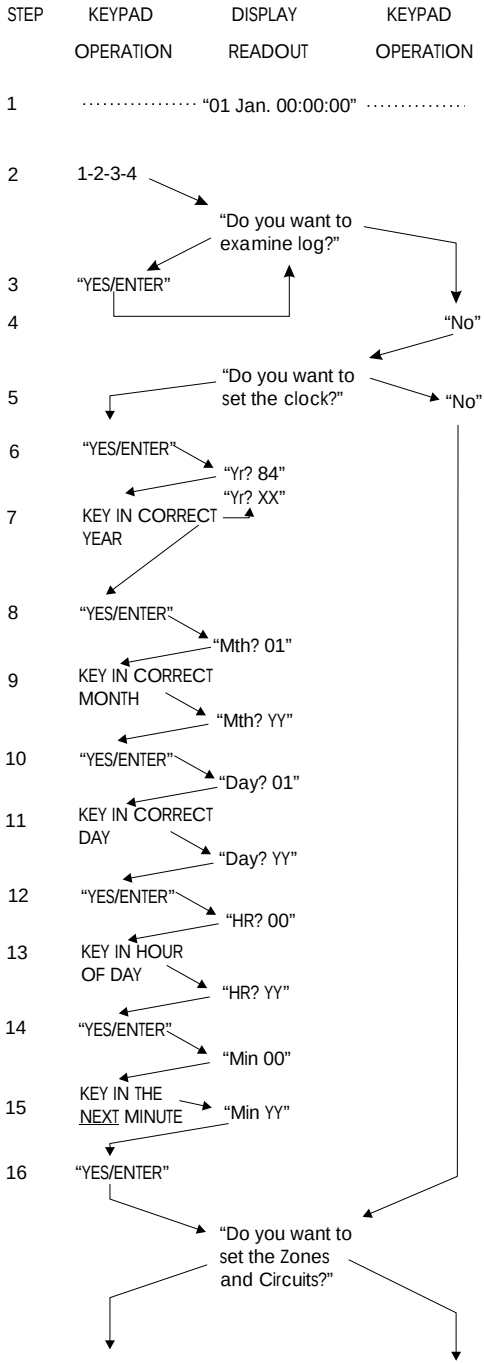
Failure of FS3 is always identified by the event "OPEN TAMPER" on all detection circuits, and failure to identify Z.E.M's.

FUSE 4 Is rated at 2A and is of the Quick Blow type. Its function is to protect the supply to the internal sounder from overloads, which is defined as a sounder impedance of less than 4 Ohms. Failure of FS4 will result in a drop in audible level of the internal sounder.

SCAN FAULT

"SCAN FAULT" will be logged if the CPA6 cannot sensibly ascertain the status of any detection circuit for a period of three scan cycles.

Should a scan fault be encountered, the detection circuits and Z.E.M interconnection wiring should be tested to ensure that the earth leakage resistance is greater than ½ MΩ for detection circuits and 2 MΩ for Z.E.M wiring. Other potential sources of scan fault can be avoided by ensuring that Z.E.M interconnection and detection circuit cables are not laid adjacent to A.C. or R.F. cabling, or are not contained within common multicore cable together with power for bells or sounders.



Comments

Clock/calendar starts timing from midnight on January 1st. when power is first applied to the panel.

Code places panel in the 'Engineer Routine'.

At this stage, no events are stored in the log: pressing the "YES/ENTER" key causes the message to recycle until the correct keypad response ("NO") is pressed.

Skips the clock/calendar setting routine and steps the panel to the next stage of commissioning.

Initiates the clock/calendar setting sequence.

This display waits for information, giving the Current Year, from the Keypad.

Enter current year via Keypad and verify on display.

Enters the displayed year into the panel's memory and initiates the next step of the routine.

The display awaits keypad information giving the current month of the year.

Enter the month number of the year via the keypad (01 = JANUARY, etc.)

As keys are pressed, the display will show the month number. When this is correct, press the "YES/ENTER" key.

Enters the displayed month into the panel's memory and initiates the next step of the sequence.

The display awaits keypad information giving the day of the month.

Enter the day of the month.

As keys are pressed, the display will show the day number. When this is correct, press the "YES/ENTER" key.

Enters the displayed day into the panels memory and initiates the next step of the sequence.

The display awaits information giving the hour of the day (24 hour format). Enter the hour of day (00 to 23) via the keypad.

As keys are pressed, the display will show the hour of day. When this is correct, press the "YES/ENTER" key.

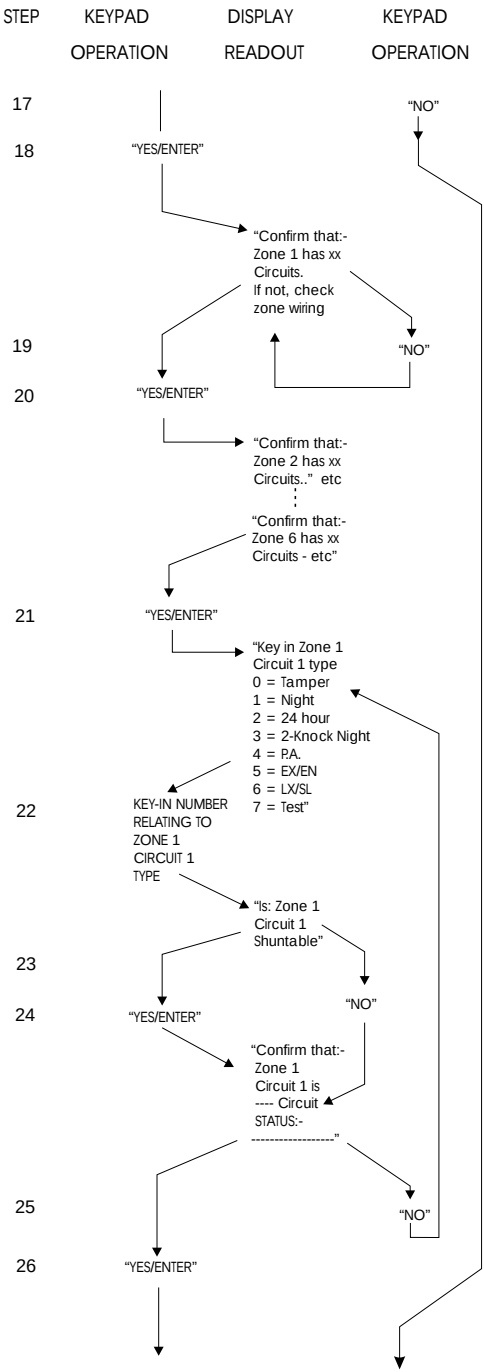
Enters the displayed hour into the panel's memory and initiates the next step of the sequence.

The display awaits keypad information giving the minute of the hour.

Set to the next whole minute of the hour, to enable the clock to be set accurately to the second.

As keys are pressed, the display will show the minute of the hour. When this is one in advance of the minute of setting, press the "YES/ENTER" key as the minute changes

Enters the displayed minute into memory, sets seconds to zero, starts the clock/calendar running and initiates the next step commissioning. Display shows this question at the start of the routine.



Comments

Skips the Zone and Circuit setting routine and steps the panel to the next stage of commissioning.

Initiates the Zone and Circuit setting routine. NOTE: At this point the control panel tests all Zone wiring for short-circuits and reversed-polarity Z.E.M. connections. If any faults are detected these will show on the display and must be cleared before commissioning can continue.

The display shows the number of detection circuits the panel identifies on Zone 1. If this is less than the number that should be present, it means that a fault condition exists on the Zone wiring: either an open-circuit between Z.E.M.s, or a Z.E.M. is connected incorrectly. Any such fault must be rectified before commissioning can continue.

Registers that displayed number of circuits is incorrect, causes the panel to re-test.

Confirms that the displayed number of circuits on Zone 1 is correct and initiates the next step (number of circuits on Zone 2.)

The display shows the number of detection circuits that the panel identifies on Zone 2.

REPEAT STEP 21 FOR ZONES 2 TO 6.

The display shows the number of detection circuits that the panel identifies on the last Zone, Zone 6.

Confirms that the displayed number of circuits on Zone 6 is correct and initiates the next stage of commissioning (defining the types of detection circuit fitted to each Zone).

The display waits to receive keypad information (0, 1, 2, 3, 4, 5 or 6) defining the nature of Zone 1, Detection Circuit 1.

NOTE: If a circuit is defined as 'On Test' type (7). the display will show an additional question requesting that the type of circuit being tested is entered.

If the Circuit type defined is one which may be made User shuntable (isolated), then the display will show this question. This applies to the following types of account:- Night (1). 24 Hour (2). 2 Knock Night (3) & Ex/En (5).

Indication that the Circuit cannot be isolated by the User.

Indication that the Circuit can be isolated by the User.

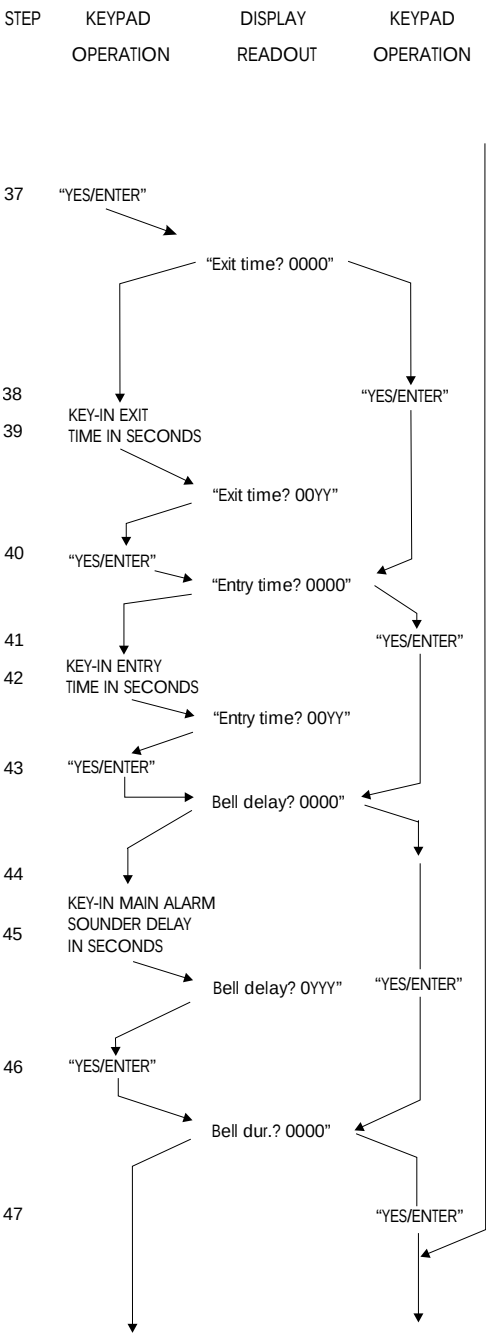
The display asks for confirmation of the circuit type that has been entered on the keypad. It also shows the condition of that particular detection circuit at the time of test, i.e. 'Healthy'. "Contact open', 'More than one contact open' or 'Short-circuit', highlighting any errors in the wiring of detection devices to the circuit.

If this key is pressed, meaning that the wrong number had been entered at step 22, the display returns to ask for circuit to be re-defined.

Confirms Zone 1, Circuit 1, type: enters it into memory and initiates the next commissioning step.

REPEAT STEP 22 ONWARDS FOR ALL DETECTION CIRCUITS ON EACH ZONE.

STEP	KEYPAD OPERATION	DISPLAY READOUT	KEYPAD OPERATION	Comments
		"Confirm that:- Zone 6 Circuit xx is ----- Circuit" "Status:- ----------"		The display asks for confirmation of the circuit type that has been entered on the keypad for the last detection circuit of the alarm system: i.e Zone 6, Circuit xx.
				Confirms Zone 6. Circuit xx, type: enters it into memory and initiates the next stage of commissioning.
				AT THIS STAGE ALL INSTALLATION WIRING HAS BEEN TESTED AND ALL DETECTION CIRCUITS (TO A MAXIMUM OF 60) CHECKED AND CLASSIFIED BY TYPE.
27	"YES/ENTER"			The display shows this question at the start of the routine.
		"Do you want to set the control options?"	"NO"	Skips the control option setting routine and returns display to step 2.
28				Initiates the control options setting routine.
29	"YES/ENTER"			The routine first assumes that the alarm system can be reset by the subscriber following an alarm and asks for this to be confirmed. The display awaits information from the keypad.
		"Confirm:- system is User Rst"	"NO"	If this key is pressed, indicating that the alarm system is not to be reset by the subscriber, then the display shows the alternative method of reset, i.e. "Engineer Reset".
30		"Confirm:- System is Engineer Rst."		The display waits for confirmation from the keypad.
				Enters the required method of system reset (by subscriber, or by Engineer) into memory and initiates the next step of commissioning.
31	"YES/ENTER"			The routine first assumes that P.A. alarms operate the main alarm audibles following a preset delay, during the system "OPEN" (Daytime) condition and asks for this to be confirmed. The display waits to receive information from the keypad.
		"Confirm:- Bell delayed in day."	"NO"	Indicates that P.A. alarms are not to be subject to any preset audible delay and initiates alternative statement.
32		"Confirm:- Bell instant in day."		
				If this key is pressed, indicating that P.A. alarms are not to be audible during the daytime; then the display shows the alternative statement.
33		"Confirm:- P.A. Silent during day"	"NO"	The display awaits confirmation from the keypad.
34				This indicates that the required operation of the P.A. Alarm has been passed and causes the routine to branch back to the beginning (Step 31).
35	"YES/ENTER"		"NO"	Enters the required action of P.A alarms (audible or silent during the system "OPEN" (Daytime) condition into memory and initiates the next step of commissioning.
		"Confirm:- Access by Shunt Lock"		The routine first assumes that the method of "SETTING' and initiating "OPENING" of the alarm system will be by a shunt-lock fitted to the last exit door, asks for this to be confirmed and awaits information from the keypad.
			"NO"	
		"Confirm:- Access by Last Exit"		If this key is pressed, indicating that control is not by shunt-lock; then the display shows the alternative method available, which is 'Last Exit i.e. final control of "SETTING" and initiating "OPENING" is via a contact fitted to the Last Exit door.
36			"NO"	The display waits for confirmation from the keypad.
				This means that the required method of setting control has been passed and causes the routine to branch back to the beginning (Step 35).



Comments

Enters the required method of 'SETTING" and "OPENING" control (shunt-Lock or Auto. Ex/En.) into memory and initiates the next step of Commissioning.

The display awaits information. Timed exit may be applied to the system regardless of the access method used. The Alarm System will set at either end of the time period, provided that the installation is secure and all circuits are healthy. If any faults exist, the system will 'latch' into fault. Where timed exit is not required, then the display is left as "0000" and the "YES/ENTER" key pressed.

Registers that the system does not have timed exit.

As keys are pressed, the display will show the exit time being set in seconds. When correct, press the "YES/ENTER" key.

Registers the exit time in the panels memory and initiates the next commissioning step.

The display shows this question and waits for information from the keypad. If entry to the alarmed premises (to open the alarm system) does not require timing, then the display time is left as "0000" and the "YES/ENTER" key operated. If entry to the premises is to be timed, then enter the required entry time, in seconds, via the keypad.

Registers that the alarm system has "infinite" entry time.

As keys are pressed, the display will show the entry time being set in seconds. When the displayed time is correct press the "YES/ENTER" key.

Enters the displayed entry time into the panel's memory and initiates the next step of commissioning.

The display shows this question and waits to receive information from the keypad. If the main alarm sounders are to be delayed from operating on an alarm activation, then enter the required delay time, in seconds, via the keypad. If the main alarm sounders are to be instant-on-alarm, then the display digits are left as "0000 and the "YES/ENTER" key operated.

Registers that the main alarm audibles are instant-on-alarm.

As Keys are pressed, the display will show the sounder-delay time being set in seconds. When the displayed time is correct, press the "YES/ENTER" key.

Enters the displayed alarm sounder delay into the panel's memory and initiates the next step of commissioning.

The display shows this question and waits to receive information from the keypad. If the main alarm sounders are to operate for a specific time, then enter the required time, in seconds, via the keypad. If the main alarm sounders are to operate continuously, until manually reset, then the display digits are left as "0000" and the "YES.ENTER" key operated.

Registers that the alarm audibles are to manually reset.

STEP	KEYPAD OPERATION	DISPLAY READOUT	KEYPAD OPERATION	Comments
48	KEY-IN MAIN ALARM SOUNDER DURATION IN SECONDS			As keys are pressed, the display will show the sounder duration time being set in seconds. When the displayed time is correct, press the "YES/ENTER key.
		"Bell dur.?YYYY"		Enters the displayed alarm sounder duration in the panel's memory and initiates the next step of commissioning.
49	"YES/ENTER"			
		"Do you want to set the Eng. Code?"		The display shows this question and awaits information from keypad, The Engineer Code (factory preset to I-2-3-4) may be made any four-digit code required.
			"NO"	Skips the Eng. Code setting routine, leaving the code as factory set i.e. 1-2-3-4.
50	"YES/ENTER"			Initialises the Eng. Code setting routine.
51		"Eng. Code? 0000"		The display awaits information from the keypad.
52	KEY-IN 4 - DIGIT ENGINEER CODE			As keys are pressed, the display will show the Code being set. When this is as required, press the "YES/ENTER" key.
		"Eng. Code? YYYY"		Enters the new Engineer Code into the panel's memory and initiates the next commissioning stage.
53	"YES/ENTER"			The display waits for information from the keypad. The P.A. Code is a 4-digit keypad code, which whenever operated, activates the panels P.A. output. The Code is particularly useful to a subscriber "OPENING" the alarm system under duress.
		"Do you want to set the P.A.Code?"		Operating the code will open the alarm system, <u>but</u> can also transmit a 'silent alarm' signal, whilst appearing to an assailant that the system has been operated as normal.
			"NO"	Skips the P.A. Code setting routine.
54	"YES/ENTER"			Initialises the P.A. Code setting routine.
55		"P.A. Code? 0000"		The display awaits keypad information from the keypad.
56	KEY-IN 4 - DIGIT P.A CODE			As keys are pressed, the display will show the Code being set. When this is as required, press the "YES/ENTER" key.
		"P.A. Code? YYYY"		Enters the P.A. Code into the panel's memory and initiates the next stage of commissioning.
57	"YES/ENTER"			The display awaits information from the keypad.
		"Do you want to set a User Code?"		Skips the User Code setting routine.
58	"YES/ENTER"			Initialises the User Code setting routine.
			"NO"	Prompt message to key-in User Number. Eight independent User codes may be programmed. The event log will store which set or opened the alarm system.
59		"Which user? (1-8)"		<u>NOTE 1</u> User Code 8 is a <u>Master Code,</u> in that, the holder will subsequently have access to a routine enabling him to examine the stored event log and to change all User Codes if required.
				<u>NOTE 2</u> A ninth User Code is available, when instant setting is required. If this Code is used, the alarm system may be set or opened from the keypad <u>regardless</u> of the normal access method programmed.

STEP	KEYPAD OPERATION	DISPLAY READOUT	KEYPAD OPERATION	Comments
				The display awaits keypad information.
60		ENTER USER NUMBER TO BE PROGRAMMED		As keys are pressed, the display will show the code being set. When this is correct, press the "YES/ENTER" key.
		"Code X? 0000"		
61	"KEY IN USER CODE"	"Code X? YYYY"		Registers User code x in the panel's memory. Selecting this User routine will enable the alarm system to be fully tested and set/opened by the Engineer, without knowledge of any user Code.
62	"YES/ENTER"			
63		"Do you want the User Routine?"	"NO"	The commissioning routine will return to step 2. If any errors have been made during programming, they can now be rectified by "skipping" through the routine to the relevant point and then amending data.
64	"YES/ENTER"			Alarm system may be fully tested and set by following simple display and prompts.
		"Do you want to examine log?"		
		USER ROUTINE		
		ENTER ENGINEER CODE		Entry of the Code places the panel in the system "OPEN" (Day) mode.

User Operating Instructions

TO SET THE SYSTEM
(Part Set facility not programmed)

1. Ensure that all monitored areas are secured
2. The Panel display should show the date and time and 'System Open'
3. Enter your 4 digit code. The Panel display will show 'Do you want to set the system?';
4. Press YES/ENTER. The Panel display will show 'Leave via Exit Route';
5. Exit sounder will sound. Leave via the designated exit route and close the last exit;
6. When the sounder stops the system is Set to guard the premise (the display shows 'System Set').

TO UNSET THE SYSTEM

1. Enter the premises via the normal entry route and go directly to the Control Panel. The entry sounder will sound;
2. Enter your 4 digit code; The sounder will stop and the system will be Unset and no longer guarding the premises. The display will show the date and time and 'System Open';
3. Deviating from the entry route or exceeding the entry time will cause an alarm condition.

ALARM CONDITION - TO UNSET THE SYSTEM.

1. Enter the premises via the normal Entry route and go directly to the Control Panel. The entry sounder will sound;
2. Enter your 4 digit code. Sounder will change to fault tone and the display will show details of the last alarm;
3. Press YES/ENTER to display other alarms;
4. After the first alarm is displayed the display will show: 'Call Alarm Company to reset' OR 'System Re-arm';
5. Call for an Engineer to reset the panel OR enter your 4 digit code;
6. If code is entered the display will show 'Do you want to set the system?';
7. Enter your 4 digit code again. System will be Unset and no longer guarding the premises. Display will show date and time and 'System Open'.

TO PART SET THE SYSTEM (Only if this facility has been programmed)

1. Ensure that all monitored areas, except those to be shunted (excluded), are secured;
2. The panel display should show the date and time and 'System Open';
3. Enter your 4 digit code. The panel display will show 'Do you want to set the system?';
4. Press YES/ENTER. The panel display will show 'Do you want any circuits shunted?';
5. Press NO and leave by the designated exit route OR press YES/ENTER;
6. If YES is pressed Display will show: 'Shunt Routine:-key in zone no (NO to exit)';
7. Press zone number (1-6) required. Display will show 'Z (No of zone) 1 2 3 - 0 (circuits)' and the Circuits that may shunted (excluded) will flash;
8. Press circuit numbers that are to be shunted (excluded). Display will indicate shunted circuits with 's' Press YES/ENTER;
9. Display will show; 'shunt Routine; - key in zone no (NO to exit)'. Repeat steps 6 to 8 for other zones and circuits if required;
10. Press NO. Display will show 'leave via exit route';
11. Exit sounder will sound. Leave via the designated exit route and close the last exit;
12. When the sounder stops the system is Part Set to partially guard the premises.

FAULT CONDITIONS

1. A Fault condition is indicated by the fault sounder and a displayed message. The following faults may occur;
2. Circuits are in alarm when attempting to set the system. The affected circuits will be displayed (Zone XX cct YY) and they must be corrected before the system will set;
3. Departing from the exit route during the setting procedure. The affected circuits will be displayed (Zone XX cct YY) and they must be corrected before the system will set;
4. Exceeding the time limit or not closing all exit route devices if Timed Exit is used. The display will show 'Time-out Exit' and the setting procedure must be re-started;
5. If an incorrect code is entered wait 5 seconds then re-enter the correct code.

Tamper Alarm

1. A Tamper Alarm will occur if any of the intruder system equipment or cables are interfered with or damaged;
2. If the panel is Set a full alarm will occur, to unset the system please see Alarm condition.
3. If the panel is not Set the display will show the date and time and 'Zone xx cct yy cct type: (type) status: Tamper Open' and the fault sounder will sound;
4. Enter your 4 digit code. Display will show 'Do you want to silence Audibles?;
5. Press YES/ENTER. Sounder will stop and display will show 'Alarm Silenced' for a few seconds then return to as in step 3;
6. Call the Alarm Company.

Testing

1. Two forms of testing are available and these are the Bell Test and the Walk Test;
2. The panel should show the date and time and 'System Open';
3. Enter your 4 digit code. The panel display will show; 'Do you want to set the system?';
4. Press NO. The display will show 'Do you want Tests?'. Press YES/ENTER;
5. The display will show 'Do you want Bell Test?;
6. Press YES/ENTER. The display will show 'Bell on' and the bells will sound for 5 seconds. OR press NO and miss this step;
7. Display will show 'Do you want Walk Test?. Press YES/ENTER. Display will show 'WALK TEST Press YES to end'. Press NO to go to step 11. Carry out walk test by opening doors etc or activating detectors. Sounder will operate at each activation;
8. Terminate the test by pressing YES/ENTER. Display will show 'Do you want to view tested ccts?'
9. Display will show zone and circuit number of each activated circuit each time that YES/ENTER is pressed then 'Do you want to view tested circuits?'
10. Press NO. Display will show 'Do you want Walk Test?. Press NO;
11. Display will show 'Do you want to Set the system?'. Enter 4 digit code. The display will show date and time and 'System Open'.

This page intentionally left blank